

THE INVENTION CLAIMED IS:

1 1. A method for use in a network over which multiple devices belonging to
2 a defined set communicate with each other by sending messages, the method
3 comprising:

4 in each message, including a network descriptor that is determined as a
5 known function of at least a particular identifier associated with at least one of
6 the devices;

7 characterized in that the method further comprises:

8 changing the network descriptor over time, whereby the network
9 descriptors in the messages received by a device outside the defined set are
10 impeded from being associated with a particular device from within the set.

1 2. The method of claim 1 wherein the network descriptor is changed
2 when a session begins on one of the devices within the set.

1 3. The method of claim 2 wherein the network descriptor is computed as
2 a known function of a seed and the particular identifier associated with at least
3 one of the devices.

1 4. The method of claim 3 wherein the known function is a one-way
2 function.

1 5. The method of claim 3 wherein the seed is at least a first random
2 number generated by at least one of the devices for use in computing the
3 network descriptor used in messages within a current session.

1 6. The method of claim 5 wherein the seed is combination of the first
2 random number and at least a second random number generated by at least one
3 of the devices for use in computing the network descriptor used in messages
4 within at least one previous session.

1 7. The method of claim 2 wherein after a session begins the network
2 descriptor is further changed on a periodic basis within the duration of the
3 session.

1 8. The method of claim 7 wherein the network descriptor is computed as
2 a known function of a seed and the particular identifier associated with at least
3 one of the devices.

1 9. The method of claim 8 wherein the seed is a combination of at least a
2 time parameter associated with at least one of the devices and a first random
3 number generated by at least one of the devices for use in computing the
4 network descriptor used in messages within a current session.

1 10. The method of claim 9 wherein the seed is a combination of the time
2 parameter associated with at least one of the devices, the first random number,
3 and at least a second random number generated by at least one of the devices
4 for use in computing the network descriptor used in messages within at least one
5 previous session.

1 11. A method for use in a wireless network over which multiple Bluetooth-
2 enabled devices within a defined set communicate with each other by sending
3 messages to and from a master device within the set, the method comprising:

1 17. The method of claim 12 where after a session begins the CAC is
2 further changed on a periodic basis within the duration of the session.

1 18. The method of claim 17 wherein the CAC is computed as a known
2 function of a seed and the BD_ADDR associated with the master device.

1 19. The method of claim 18 wherein the seed is a combination of at least
2 a time parameter associated with at least one of the devices and a first random
3 number generated by at least one of the devices for use in computing the CAC
4 used in messages within a current session.

1 20. The method of claim 19 wherein the seed is a combination of the time
2 parameter associated with at least one of the devices, the first random number,
3 and at least a second random number generated by at least one of the devices
4 for use in computing the CAC used in messages within at least one previous
5 session.

1 21. Apparatus for use in a device that sends and receives messages to
2 other devices within a defined set on a network, said apparatus comprising:
3 means for computing for inclusion within each message a network
4 descriptor as a known function of at least a particular identifier associated with at
5 least one of the devices within the set; and
6 means for changing the network descriptor over time, whereby the
7 network descriptors in the messages received by a device outside the defined
8 set are impeded from being associated with a particular device from within the
9 set.

1 22. The apparatus of claim 21 further comprising means for detecting the
2 beginning of a session on one of the devices within the set, the changing means

- 3 causing the computing means to recompute the network descriptor when the
4 beginning of a session is detected.

1 23. The apparatus of claim 22 further comprising means for providing a
2 seed to the computing means, the computing means computing the network
3 descriptor as a known function of the seed and the particular alphanumeric
4 characteristic associated with at least one of the devices.

1 24. The apparatus of claim 23 wherein the known function is a one-way
2 function.

1 25. The apparatus of claim 23 wherein the seed is at least a first random
2 number generated for use in computing the network descriptor used in
3 messages within a current session.

1 26. The apparatus of claim 25 wherein the seed is a combination of the
2 first random number and at least a second random number generated for use in
3 computing the network descriptor used in messages within at least one previous
4 session.

1 27. The apparatus of claim 22 wherein the changing means changes the
2 network descriptor on a periodic basis within the duration of a session once the
3 session begins.

1 28. The apparatus of claim 27 further comprising means for providing a
2 seed to the computing means, the computing means computing the network

3 causing the computing means to recompute the CAC when the beginning of a
4 session is detected.

1 33. The apparatus of claim 32 further comprising means for providing a
2 seed to the computing means, the computing means computing the CAC as a
3 known function of the seed and the BD_ADDR associated with the master
4 device.

1 34. The apparatus of claim 33 wherein the known function is a one-way
2 function.

1 35. The apparatus of claim 33 wherein the seed is at least a first random
2 number generated by at least one of the devices for use in computing the CAC
3 used in messages within a current session.

1 36. The apparatus of claim 35 wherein the seed is a combination of the
2 first random number and at least a second random number generated by at least
3 one of the devices for use in computing the CAC used in messages within at
4 least one previous session.

1 37. The apparatus of claim 32 wherein the changing means changes the
2 CAC on a periodic basis within the duration of a session once the session
3 begins.

1 38. The apparatus of claim 37 further comprising means for providing a
2 seed to the computing means, the computing means computing the CAC as a

